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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,147	10/21/2005	Normann Freisinger	095309.56027US	6532

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

MAIL DATE	DELIVERY MODE
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07/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,147	Applicant(s) FREISINGER ET AL.	
	Examiner Diem Tran	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10, 12, 13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 3, 11, 14 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 9 is objected to because of the following informalities:

-In claim 9, lines 3, 4, --at least one of-- should be inserted after “to” and “and/or” should be changed to --and--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 8-9, 12, 13, 16, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Paffrath et al. (WO 01/59273) (see equivalence US Patent 6,817,173).

Regarding claims 1, 2, 12, Paffrath discloses an internal combustion engine with fuel injection, having an intake line, in which a throttle element (14) is arranged, an exhaust system and a gas conveying system having a turbine (18) which can be driven by an air stream and to which a turbine inlet line and a turbine outlet line are connected, and a pump (20) which can be driven by the turbine and has a pump inlet line and a pump outlet line, via which gas delivered by the pump can be fed to the exhaust system, characterized in that when the internal combustion engine is starting up, the quantity of fuel injected into it can be set as a function of the delivery capacity of the pump (see Figure 1, col. 5, lines 49-55).

Regarding claim 4, Paffrath further discloses that the throttle element (14) can be set as a function of a pressure in the intake line when the engine is starting up (see col. 4, lines 43-52).

Regarding claims 8, 16, Paffrath further discloses that the gas stream delivered by the pump (20) can be set as a function of an air/fuel ratio in the exhaust system (see col. 1, lines 50-55).

Regarding claim 9, Paffrath further discloses that the gas stream delivered by the pump can be fed directly to a catalytic converter assigned to the exhaust system (see Figure 1, col. 6, lines 31-37).

Regarding claim 13, Paffrath further discloses that the throttle element is held predominantly closed and is only opened after the pump has reached a minimum delivery capacity when the engine is starting up before the fuel injection begins (see col. 5, lines 25+).

Regarding claim 17, Paffrath further discloses that one of at least two addition points in the exhaust system at which the airstream delivered by the pump is added to the exhaust gas is selected as a function of the operating state of the internal combustion engine (see col. 6, lines 41-45, col. 7, lines 1-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7, 10, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paffrath et al. (US Patent 6,817,173) in view of Nohira et al. (US Patent 3,774,399).

Regarding claims 5, 6, 15, Paffrath discloses all the claimed limitations as discussed in claims 1, 12 above, however, fails to disclose that the turbine can be driven by an airstream which is generated by a gas conveying unit which is arranged in the turbine inlet. Nohira teaches that a turbine can be driven by an airstream being generated by a gas conveying unit which is arranged in the turbine inlet (see Figure, col. 2, lines 9-13).

It would have been obvious for one having ordinary skill in the art, to have utilized the teaching of Nohira in the Paffrath system since the use thereof would have been conventional in the art.

Regarding claim 7, Nohira further teaches that an evacuable gas vessel (12) is arranged in the turbine outlet line (see Figure).

Regarding claims 10, 19, Paffrath discloses all the claimed limitations as discussed in claims 1, 12 above, however, fails to disclose that the exhaust gas can be fed to the pump via the pump inlet line and the exhaust gas stream delivered by the pump can be fed to the intake line. Nohira teaches that exhaust gas (8) can be fed to the pump (14) via the pump inlet line and the exhaust gas stream delivered by the pump can be fed to the intake (see Figure).

It would have been obvious for one having ordinary skill in the art, to have utilized the teaching of Nohira in the Paffrath system since the use thereof would have reduced NO_x content in the exhaust gas.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paffrath et al. (US Patent 6,817,173) in view of Yamada et al. (US Patent 3,963,444).

Regarding claim 18, Paffrath discloses all the claimed limitations as discussed in claim 12 above, however, fails to disclose the airstream delivered by the pump cools a definable part of the exhaust system if a predeterminable threshold value for a temperature in the exhaust system is exceeded. Yamada teaches that a secondary air delivered by a pump (6) cools a definable part of the exhaust system if a predeterminable threshold value for a temperature in the exhaust system is exceeded (see col. 4, lines 62-68, col. 5, lines 1-7).

It would have been obvious for one having ordinary skill in the art, to have utilized the teaching of Yamada in the Paffrath system since the use thereof would have been conventional in the art.

Allowable Subject Matter

Claims 3, 11, 14, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 6:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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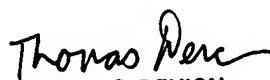
supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).



Diem Tran
Patent Examiner
Art unit 3748

DT



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700